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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/528,446 03/17/00 FUJIMA

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000466

MMC2/0126

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EXAMINER

MAILS

ART UNIT

PAPER NUMBER

2818

DATE MAILED:

01/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/528,446

Applicant(s)

FUJIMA

Examiner

S. MAI

Group Art Unit

2818

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 12-20-00
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-22 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 1-7, 11, 12, 14, 15, 18, 20-22 is/are allowed.
- ☒ Claim(s) 8-10, 13, 16, 17, 19 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☒ The proposed drawing correction, filed on 12-20-00 is ☒ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

DETAILED ACTION

1. The papers filed on 12-20-00 have been received. The drawings changes have been approved. The amendment to the claims and the addition of claims 14-22 are acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,468,985 issued to Harima.

Harima discloses a semiconductor memory device comprising memory blocks. Each memory block comprises a connecting portion, provided above memory cells in the memory blocks, for connecting metallic wiring layers (see column 10, lines 6-29. ^{are} The shunt lines 3_{are} the connecting portion as claimed).

4. Claims 10, 13, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,406,526 issued to Sugibayashi et al.

Regarding claim 10, Sugibayashi et al. teach a semiconductor memory device having row decoding (35 in figure 10B) and column decoding (43 in figure 10B) for generating row and column selecting signals. The column selecting signal lines (381 in figure 10A) are perpendicular to the input/output lines (output from I/O unit 44).

Regarding claim 13, Sugibayashi et al. show a column pre-decoding section (371 in figure 10B) to generate a column pre-decoded signal (381), a column decoding section (90 in figure 17) provided in the same area of the memory block with a sense amplifier (88).

Regarding claims 17 and 19, the Sugibayashi et al. semiconductor memory device is a dynamic random access memory (DRAM) (see column 1, the Field of the Invention).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,468,985 to Harima.

Harima discloses a connecting portion, provided above memory cells of a semiconductor memory device, for connecting metallic wiring layers as claimed in the independent claim 8 to which claim 16 is dependent upon. Claim 16 further calls for the semiconductor memory device is a DRAM. Harima is silent to the applying of the connecting portion for connecting the metallic wiring layers to a DRAM as the instant invention. However, at column 13, second and third paragraph, Harima suggests that the disclosed invention can be applied to various semiconductor devices which could

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include a DRAM. Therefore, it would have been obvious to one of ordinary skill in the art to apply Harima's disclosure for a DRAM in order to reduce wiring resistance and capacitance between wirings and improve access time to the memory device.

Allowable Subject Matter

7. Claims 1-7, 11-12, 14, 15, 18, 20-22 are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al. (U.S. Patent 5,485,426) teach a semiconductor memory device having column selecting lines (CSL) being perpendicular to input/output lines (I/O in figure 3).

Response to Arguments

9. Applicant's arguments filed 12-20-00 have been fully considered but they are not persuasive. The details of the rejection are stated in the above rejection sections.
10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Mai whose telephone number is 703-305-3497.

The examiner can normally be reached on 7-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 703-308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



January 18, 2001

Son Mai
Examiner
Art Unit 2818